REMARKS/ARGUMENTS

Claims 1-24 are pending in the application. Claims 1, 3, 13, 15, 21, and 23 are amended herein. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

Claim Rejections - 35 USC 112

On page 2 of the final office action, the Examiner rejected claims 21-24 as being indefinite.

Regarding claims 21 and 23, the Examiner stated that certain recitations in those claims could not be understood "since no selecting means is recited in the claims." The Examiner also questioned "how this limitation is read on the preferred embodiment or seen on the drawings." In response, the Applicant has amended claims 21 and 23 to recite that (1) the one gm cell has switch circuitry connected to the first and second input nodes, (2) the one gm cell is adapted to be configured to have non-zero transconductance by selectively applying two different input signals to the first and second input nodes using the switch circuitry, and (3) the one gm cell is adapted to be configured to have substantially zero transconductance by selectively applying a single input signal to the first and second input nodes using the switch circuitry. Switches 602 in Fig. 6 are an example of the switch circuitry of currently amended claims 21 and 23.

Regarding claims 22 and 24, the Examiner stated that "it is unclear how the common-mode signal can be 'corresponding' to the signal pair." In response, the Applicant submits that a person of ordinary skill in the art would understand that a common-mode signal corresponding to a differential signal pair is a signal whose voltage is the average of the voltages of the two signals in the differential signal pair.

In view of the foregoing, the Applicant submits that the rejections of claims under 35 USC 112 have been overcome.

Claim Rejections - 35 U.S.C. 102 and Allowable Subject Matter

On page 3, the Examiner rejected claims 1-2, 5-14, 16-17, and 20 as being unpatentable over Deveirman. On page 4, the Examiner stated that claims 3-4, 15, and 18-19 would be allowable if rewritten to overcome the rejection(s) under Section 112, second paragraph. For the following reasons, the Applicant submits that all of the now-pending claims are allowable over Deveirman.

Claims 1 and 13

Claim 1 has been amended to clarify that one of the gm cells in the at least one filter section can itself be configured to have substantially zero transconductance, such that the at least one filter section will oscillate. Deveirman does not teach or even suggest such a combination of features.

In rejecting claim 1, the Examiner stated on page 3 that Deveirman discloses "at least one of the gm cells (600) being configured to have substantially zero transconductance (gm2=gm,osc)." The Applicant submits that this constitutes a mischaracterization of the teachings in Deveirman. Deveirman does not teach that gm cell 600 is configured to have "substantially zero transconductance." Rather, Deveirman teaches configuring gm cell 600 of Fig. 6 to have a negative transconductance ($-g_{m,\,osc}$) that cancels the positive transconductance g_{m2} of gm cell 306. See column 7, lines 53-56. As shown in Equation [7] on column 8, line 15, when $g_{m,\,osc}$ equals g_{m2}, Q_o is infinite and, as a result, the filter section

of Fig. 6 will oscillate. See column 8, lines 16-18. Thus, notwithstanding the Examiner's statements otherwise, Deveirman does not teach that gm cell 600 is configured to have substantially zero transconductance.

At the bottom of page 3, the Examiner stated that "the section (700) is configured to have zero transconductance so that it can be oscillated." The Applicant submits that this constitutes a mischaracterization of the claimed invention. According to claim 1, the one gm cell can itself be configured to have substantially zero transconductance. Claim 1 does not recite that the at least one filter section has substantially zero transconductance. Thus, whether or not Deveirman's section 700 is configured to have zero transconductance is not a relevant question. The relevant question is whether Deveirman teaches a gm cell that can itself be configured to have substantially zero transconductance. And the answer to that question is that Deveirman does not provide such a teaching.

For all these reasons and for those reasons included in the previous amendment, the Applicant submits that claim 1 is allowable over Deveirman. For similar reasons, the Applicant submits that claim 13 is allowable over Deveirman. Since the rest of the claims depend variously from claims 1 and 13, it is further submitted that those claims are also allowable over Deveirman. The Applicant submits therefore that the rejections of claims under Sections 102(b) have been overcome.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Respectfully submitted,

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